Facts about... HIV/ AIDS in pregnant women and children

Summary: A small number of children who live in King County have been diagnosed with HIV or AIDS, and all since 1986 were perinatally infected. Locally, children under age 13 comprise 0.3% of all HIV diagnoses. We estimate that 11 out of every 10,000 women of childbearing age in King County have HIV, with significantly higher rates among Women of Color and their children compared to whites. Since 1996, perinatally-acquired HIV has sharply declined nationally due to use of antiretroviral therapies in HIV-infected pregnant women. Continued education on the benefits of HIV counseling and testing among pregnant women is necessary to maintain today’s historically low levels. The risk of perinatal transmission is known to increase if a woman acquires HIV during pregnancy, has a high HIV viral load, refuses treatment, and/or breastfeeds.

AIDS/ HIV cases among children in King County:

- A total of 37 pediatric HIV infections (age 0 to 12 years at the time of HIV diagnosis) have been reported in King County. These represent 0.3% of the 10,680 King County residents ever diagnosed with HIV.
- Twenty-nine of the 37 children were infected with HIV perinatally (before birth or during labor and delivery). Three children were infected through blood products administered for hemophilia treatment. Five children were born outside the U.S. and specific risk histories are unknown.
- No HIV diagnoses associated with blood-product have occurred among children since 1986.
- Approximately 20-30 infants are born to HIV-infected mothers each year, and one case of perinatal transmission was confirmed in a King County resident since 1998.
- Sixteen of the 37 pediatric cases developed AIDS, and nine have died.
- Twenty of the 28 living cases are now young adults over age 13.
- The race/ethnicity of the 37 children diagnosed with HIV/AIDS is 54% African American; 27% white; 11% Hispanic; and 5% Asian/Pacific Islander. One child (3%) was of mixed race.

HIV positive pregnant women receiving care in King County (1990-2003) (Figure1):

- A small number of HIV infections have been transmitted to children born to HIV-infected women. In the local Adult Spectrum of Disease study, 679 HIV positive women who receive care with King County providers were followed for an average of 3 years and 133 (26%) were pregnant at any time between 1990-2003.
  - There were 13-30 births per year among the HIV+ women followed in this study (Figure 1).
  - The percent of HIV positive women who were pregnant declined from 26% in 1990 to 7% in 2003.

Figure 1: Pregnancy and births among HIV-infected women receiving care in King County (1990-2003)
The average age of women who were ever pregnant was 27 years, relative to 34 years for those who had not been pregnant. One-quarter of pregnant women had two or more pregnancies.

There were no differences in the race of women who became pregnant vs. those who did not.

Pregnant women were less likely than women with no pregnancy to have a diagnosis of severe mental illness (psychoses & bipolar disorders—5% vs. 14%), but equally likely to be diagnosed with substance abuse (injection or non-injection drug use or alcohol abuse—42% vs. 43%).

HIV/AIDS among women of childbearing age (15-44 years) in King County:
- An estimated 760 HIV-infected adult or adolescent women live in King County.
- Sixty percent of HIV-infected women are currently 15 to 44 years old, for a total estimate of 460 women of childbearing age living in King County.
- About 11 out of every 10,000 women of childbearing age in King County, has HIV infection (460 / 408,000).
- As of the end of 2007, women comprised 12% (383 / 3,137) of all persons currently living with HIV, 15-44 years old.
- Young women make up 27% of the 143 cases aged 15-19 at the time of their HIV diagnosis.

Infants born to HIV positive mothers and material antiretroviral use:
- Between 1987 and 2005, 217 pregnancies among HIV-infected women were clinically managed at the University of WA Department of Obstetrics & Gynecology, Public Health—Seattle & King County’s Northwest Family Center, or Children’s Hospital & Medical Center. Approximately half of these women were residents of King County. Among the 71 children born to these women between 1987 and 1993, eight (11%) became infected with HIV. Since 1994, when antiretroviral therapy during pregnancy became standard, only one of 137 children (<1%) subsequently became HIV-infected.
- Among 11 HIV-infected children born to HIV-infected mothers since 1994, only one birth was after 1997. In three cases the mother was aware of her HIV status prior to pregnancy. Three births occurred locally, two in other states, four in other countries, and two have unknown birthplace.
- Of 96 pregnant women followed by local experts 1997-2003, 70% were prescribed highly active antiretroviral therapy, 14% dual therapy, and 16% monotherapy. Only one woman received no retroviral therapy.

HIV prevalence and incidence:
- The Survey of Childbearing Women was a federally-funded, population-based survey that used blood obtained by metabolic screening programs to anonymously test newborns for HIV antibodies; a positive test indicated maternal HIV infection. The survey tested 123,268 infants born from 1989-1995 and found maternal HIV infection in 0.04% (about 4 in 10,000) of King County women giving birth. Rates of HIV infection were 10 times higher in African American women compared to white women.
- Testing at local publicly-funded counseling and testing sites from 1997-1999 found 60 HIV-infected women of 15,635 women tested (less than 4 per 1,000). Among these, eight of 55 (15%) tested for recent infection by the LS-EIA method were found to have acquired HIV within the past two to six months.
National studies and policy recommendations:

- In 1994 the landmark Pediatric AIDS Clinical Trials Group (PACTG) 076 study results were released showing dramatic reduction of perinatal HIV transmission from 26% to 8% with maternal and neonatal zidovudine (AZT) use.

- The Centers for Disease Control and Prevention (CDC) and the Institute of Medicine recommend that all pregnant women are provided HIV testing during their pregnancy, with the option to decline testing. Universal HIV screening of pregnant women would reduce provider bias, as providers often do not request HIV tests for women they do not perceive to be at risk, and it could also reduce stigma about HIV testing that may be felt by pregnant women.

- The CDC recommends that all HIV positive pregnant women are prescribed a highly active antiretroviral treatment (HAART) that includes AZT, especially in the last weeks of pregnancy and during delivery, and children born to these women are recommended to receive AZT at the time of birth.

- In PACTG 367, 945 HIV positive pregnant women observed in 1998-1999 were accessed for antiretroviral use and pregnancy outcomes. Of the 945 women, 13% received no antiretrovirals, 19% received AZT alone; and 68% received multidrug antiretroviral regimens with or without a protease inhibitor. Transmission rates of HIV to the infants were 26% with no antiretroviral therapy, 8% on AZT alone, and 1% to 3% for the other antiretroviral regimens.